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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/846,991 | 05/01/2001 | Hiroshi Shibata | 2271/64858 | 3907 |

7590 03/22/2005

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EXAMINER

SHINGLES, KRISTIE D

| ART UNIT | PAPER NUMBER |
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2141

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/846,991

Applicant(s)

SHIBATA, HIROSHI

Examiner

Kristie Shingles

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant has not amended any claims. Claims 1-46 are still pending.

Drawings

1. The proposed drawing corrections filed 12/02/2004 have been accepted by the Examiner. The corrections to the drawings will not be held in abeyance.

Claim Objections

2. Per claims **17 and 25**, Applicant's arguments, see page 19 lines 11-15, filed 12/02/2004, with respect to use of the conjunction "and" in the claim limitation have been fully considered and are persuasive. The objection of claims 17 and 25 has been withdrawn.

Response to Arguments

3. Applicant's arguments filed 12/02/2004 have been fully considered but they are not persuasive in reference to the cited prior art *Sampath et al* (USPN 6,665,425). The rejection of claims 1-46 is sustained and is rendered below.

A. **Regarding Claim 1**, as stated in the Applicant's Remarks, Applicant finds "no teaching or suggestion in Sampath, however, of a detector adapted for detecting a status of usage of a consumable product used in the apparatus, and a controller configured to automatically send a request for replenishing the consumable product to a manager using an electronic communications address of the manager, when the detector detects that the consumable product

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is nearly exhausted, and sending a report for reporting a completion of supplying the consumable product on the apparatus when the detector detects that the consumable product is refilled, as described in independent claim 1". The Examiner's remarks follow below.

A.1. It is the Examiner's position that *Sampath et al* teach a detector evident in the image quality analysis, diagnostic/prognostic analysis, and image quality defect recognition circuit that function to detect and identify defects in the image quality parameters, which are directly related to the quality and quantity of the consumable product used in the machine. Furthermore, virtual sensors are provisioned for conducting various analysis tests of the machine correlated to the consumable products used in the apparatus also with the ability to "diagnose machine failures down to the individual component" (col.1 line 35-col.2 line 48 and col.5 line 38-col.7 line 67).

A.2. In response to Applicant's argument that the reference fails to show certain features of applicant's invention, it is noted that the feature upon which applicant relies (i.e., "...a controller configured to automatically send a request for replenishing the consumable product to the manger...") is not recited in the rejected claim. The "automatic" feature recited in the argument is not stated in the claim. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 SPQ2d 1057 (Fed. Cir. 1993). Nonetheless, *Sampath et al* disclose a "repair sequence" of the diagnostic system configured to request either a customer or a customer service engineer to provide "repair action" which may include "guiding the customer through a repair procedure, automatic scheduling of service, parts and/or consumables and automated remediation of faults" (Abstract, col.1 line 39-col.2 line 67, col.5 lines 2-4 and col.6 lines 51-59).

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A.3. Furthermore, it is the Examiner's position that *Sampath et al* teach reporting the completion and/or result of the repair operation whether the repair comprises component repair or re-supplying consumables used by the machine. *Sampath et al* teaches that once the machine has been repaired a "verification process" is initiated to ensure the success of the repair and the results and repair procedures are then logged into a machine service log (col.5 lines 1-8, col.7 line 50-col.8 line 51 and col.10 lines 54-64).

B. **Regarding Claim 5**, as stated in Applicant's Remarks, Applicant "disclosure or suggestion by Sampath, however, of a detector adapted to detect an event indicative of a defect in a maintenance component used in the apparatus, and a controller configured to send a request for repair service to the manager and the service depot using the respectively registered electronic communications addresses of the manager and the service depot, when the detector detects the defect event, and send a report for reporting a completion of the repair service on the apparatus when the detector detects no defect of the maintenance component, as provided by independent claim 5". The Examiner's remarks follows below.

B.1. It is the Examiner's position that *Sampath et al* teach a detection system capable of detecting defects in the machine and to "diagnose machine failures down to the individual component" (col.1 line 35-col.2 line 48, col.5 line 38-col.7 line 67 and col.8 lines 1-11).

B.2. Still, it is the Examiner's position that *Sampath et al* teach a "repair sequence" of the diagnostic system configured to request either a customer or a customer service engineer to provide "repair action" which may include "guiding the customer through a repair procedure, automatic scheduling of service, parts and/or consumables and automated remediation of faults" (Abstract, col.1 line 39-col.2 line 67, col.5 lines 2-4, col.6 lines 51-59 and col.8 lines 21-61). Notification methods for contacting customer service engineers or customers, includes "e-mails, paging, cellular phones, a web page, or the like (col.4 lines 33-64, col.5 lines 1-8, col.8 lines 1-20 and col.10 line 65-col.11 line 13).

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B.3. Furthermore, it is the Examiner's position that *Sampath et al* teach sending a report detailing the completion and/or results of the repair process and the "status information about the system, a list of one or more failed components, information pertaining to components that are predicted to fail or the like" (col.5 lines 1-8, col.7 line 50-col.8 line 51 and col.10 lines 54-64).

C. As stated in Applicant's Remarks, Applicant "simply does not find teaching or suggestion in Sampath of the automated maintenance features of the claimed invention". The Examiner's response follows below.

C.1. It is the Examiner's position that *Sampath et al* clearly teach an automated image quality-based diagnostic and remediation system and method for document processing systems, which comprises maintenance features of the diagnostic and repair system (Abstract, col.1 line 39-col.2 line 67, col.5 lines 2-4 and col.6 lines 51-59). Nonetheless, as previously stated the "automated" feature is not recited in any of the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 SPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. Claims 1-46 are rejected under 35 U.S.C. 102(e) as being anticipated by *Sampath et al* (USPN 6,665,425).

a. Per claim 1, *Sampath et al* teach a communications terminal apparatus, comprising:

- a communications system configured to perform electronic communications with a manager supervising said apparatus (**Abstract and col.7 line 57-col.8 line 20; system is in communication with the customer or the service engineer via a user interface for notifying the user and requesting repair from the service engineer or parts supplier**);
- a detector detecting a status of usage of a consumable product used in said apparatus and supplied by a service depot (**col.1 lines 48-60, col.2 lines 19-21, col.4 lines 34-42 and col.5 lines 1-8; the image quality analysis module detects defects and the image quality parameters, inclusive of consumable products**);
- a register registering electronic communications addresses of said manager and said service depot, identification of said apparatus, specification of said consumable product, and identification of said service depot (**col.1 line 61-col.2 line 58, col.3 line 53-col.4 line 10, and col.7 line 50-col.8 line 51; diagnostic system is capable of notifying the customer/user/manager via e-mail, web page, pager, etc and also machine-specific information is kept obtainable in knowledge servers and forwarded to the diagnostic inference engine**); and
- a controller configured to send a request for supplying said consumable product to said manager using said electronic communications address when said detector detects that said consumable product is nearly ended and a report for reporting a completion of supplying said consumable product on said apparatus when said detector detects that said consumable product is refilled, said request including said identification of said apparatus, said specification of said consumable product, and said identification of said service depot (**Abstract, col.4 line 11-col.5 line 8, col.6 lines 15-50 and col.7 line 50-col.8 line 51; implementation of diagnostic controller and diagnostic inference engine used to contact customer/user/manager upon detection of failed components or image defects thereby producing a list or analysis of failures and repairs**).

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b. **Claims 5, 9 and 12** contain limitations substantially equivalent to the limitations of Claim 1 and are therefore rejected under the same basis.

c. **Per claim 39, *Sampath et al*** teach a method of maintaining a system that comprises networked units that may require from time to time at least one of replenishing consumables and servicing of components, wherein said consumables or servicing are provided by at least one external facility and said system of networked units is supervised by a manager who need not be at the premises of said units, said method comprising:

- automatically detecting a first event indicative of a requirement for replenishing consumables or servicing components at any one of said networked units, and generating a first detection signal in response to a detection of a first event at the unit (**col.1 lines 48-60, col.2 lines 19-21, col.4 lines 34-42 and col.5 lines 1-8; the image quality analysis module detects defects and the image quality parameters, inclusive of consumable products**);
- responding to the generation of a first detection signal at the unit to automatically generate and electronically transmit a first notification to each of (a) the manager supervising the networked units, and (b) the at least one external facility (**Abstract and col.7 line 57-col.8 line 20; system is in communication with the customer or the service engineer via a user interface for notifying the user and requesting repair from the service engineer or parts supplier**);
- wherein said first notification identifies at least said unit and said event to thereby advise both the manager and the at least one facility (a) which of the networked units has a requirement and (b) what is the requirement (**col.1 line 61-col.2 line 58, col.3 line 53-col.4 line 10, and col.7 line 50-col.8 line 51; diagnostic system is capable of notifying the customer/user/manager via email, web page, pager, etc and also machine-specific information is kept obtainable in knowledge servers and forwarded to the diagnostic inference engine**);
- automatically detecting thereafter at said unit a second event indicating that the requirement has been satisfied, and generating a second detection signal in response to a detection of said second event (**Abstract and col.5 lines 1-8; verification process takes place after repairs to ensure operability**); and

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- responding to the generation of said second detection signal to automatically generate and transmit a second notification to at least one of said manager and said at least one facility (**Abstract, col.5 lines 1-8 and col.8 lines 1-45; customers/users/managers are contacted during the verification process to ensure repair operability**);
- said second notification advising that the requirement has been met (**Abstract, col.5 lines 1-8 and col.8 lines 36-45; verification process takes place after repairs to ensure operability**).

d. **Claims 15, 20, 23, 28, 31 and 35** contain limitations substantially equivalent to the limitations of Claims 1 and 39 and are therefore rejected under the same basis.

e. **Per claim 2, Sampath et al** teach a communications terminal apparatus as defined in claim 1, wherein said communications system performs E-mail communications with said manager (**col.1 lines 61-67 and col.7 line 57-col.8 line 20; performs e-mail notifications to customers and customer service engineers and parts supplier**).

f. **Claims 6, 10, 13, 18, 26, 32, 36 and 42** contain limitations substantially equivalent to the limitation of Claim 2 and are therefore rejected under the same basis.

g. **Per claim 3, Sampath et al** teach a communications terminal apparatus as defined in claim 1, wherein said consumable product includes toner (**col.7 lines 3-23 and col.8 lines 1-51; toner is provided for via use of image quality defect recognition circuit that can detect defects in parameters that include tone-reproduction, color balance, color variation, etc. parameters which would be effected by toner defects or the replacement thereof**).

h. **Claims 11, 33 and 44** contain limitations substantially equivalent to the limitations of Claim 3 and are therefore rejected under the same basis.

i. **Per claim 4, Sampath et al** teach a communications terminal apparatus as defined in claim 1, wherein said communications system performs facsimile communications with said

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manager (col.1 lines 40-67 and col.5 lines 9-22 and col.8 lines 11-20; system provides for facsimile implementation and allows for variety of communication means including but not limited to via e-mail, pagers, cellular phones, web pages which would also implicitly include communicating via facsimiles).

j. Claims 8, 19, 22, 27, 30, 34, 38 and 43 contain limitations substantially equivalent to the limitations of Claim 4 and are therefore rejected under the same basis.

k. Per claim 7, *Sampath et al* teach a communications terminal apparatus as defined in claim 5, wherein said maintenance component includes a photoconductor (col.5 lines 9-22; system provides for implementation and repair on various types of printers, scanners, and photocopiers that by virtue of design use photoconductors).

l. Claims 14, 37 and 46 contain limitations substantially equivalent to the limitations of Claim 7 and are therefore rejected under the same basis.

m. Per claim 16, *Sampath et al* teach a communications terminal apparatus as defined in claim 15, further comprising:

- an analyzer configured to analyze E-mail including request receipt acknowledgement information notified from either said manager or said service depot with respect to said first E-mail (col.7 lines 36-67; input may be obtained from the user/customer/manager and analyzed by the image quality defect recognition circuit or diagnostic inference engine);
- a display displaying said request receipt acknowledgement information (col.8 lines 1-20; display of results and notifications),
- wherein said mail controlling system controls said display to display said request receipt acknowledgement information analyzed by said analyzer, and controls said display to stop displaying when said consumable product is determined to be in said refilled status based on said detect information detected by said consumable product status detector (Abstract and col.8 lines 1-51, col.10 line 65-col.11 line 13; diagnostics routine ends upon determining and verifying satisfactory machine operation).

n. **Claims 21, 24 and 29** contain limitations substantially equivalent to the limitations of Claim 16 and are therefore rejected under the same basis.

o. **Per claim 17, *Sampath et al* teach a communications terminal apparatus as defined in claim 15, wherein said terminal identification information includes at least one of an E-mail address, a serial number, facsimile TTI information, and a telephone number of said apparatus (col.1 line 61-col.2 line 58, col.3 line 53-col.4 line 10, and col.7 line 50-col.8 line 51; diagnostic system is capable of notifying the customer/user/manager via e-mail, web page, pager, cellular phone, etc and also machine-specific information is kept obtainable in knowledge servers and forwarded to the diagnostic inference engine).**

p. **Claim 25** contains limitations substantially equivalent to the limitations of Claim 17 and is therefore rejected under the same basis.

q. **Per claim 40, *Sampath et al* teach a method as in claim 39 including receiving at the unit, in response to said transmitting of said first notification, a first communication from at least one of said manager and said at least one external facility and displaying a selected representation of said response at the unit (col.2 lines 54-58, col.7 lines 36-67 and col.8 lines 1-20; input may be obtained from the user/customer/manager and analyzed by the image quality defect recognition circuit or diagnostic inference engine with the display results and notifications).**

r. **Per claim 41, *Sampath et al* teach a method as in claim 40 in which said communication is from said at least one external facility and advise when the request is expected to be met (col.1 lines 52-67 and col.2 lines 54-67; communication with customer service**

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engineers may involve scheduling of the repair service or remediation, which would include advising when the request is expected to be satisfied).

s. Per claim 45, *Sampath et al* teach a method as in claim 39 in which said first event is indicative of a requirement to service a heater in said unit (col.3 line 53-col.4 line 26; data collected from the machine may include calibration, temperature, usage, configuration information, etc. which, if defected, may be due to a heater inside the machine thus requiring service according to the system's embodiments).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. *Dulberg et al* (US 20030005107) disclose a support network.
- b. *Richards et al* (USPN 6,754,707) disclose a secure computer support system.
- c. *Sampath et al* (USPN 6,519,552) disclose systems and methods for a hybrid diagnostic approach of real time diagnosis of electronic systems.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie Shingles whose telephone number is 571-272-3888. The examiner can normally be reached on Monday-Friday 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristie Shingles
Examiner
Art Unit 2141

kds



RUPAL DHARIA
SUPERVISORY PATENT EXAMINER

